

## *Pterichis Moralesii* (Cranichidinae, Orchidaceae), a new species from Colombia

Marta Kolanowska\* & Dariusz L. Szlachetko

*Department of Plant Taxonomy and Nature Conservation, University of Gdańsk, ul. Wita Stwosza 59, PL-80-308 Gdańsk, Poland (\*corresponding author's e-mail: martakolanowska@wp.pl)*

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*Pterichis Moralesii*, a new orchid species from Colombia, is described and illustrated. The differences between *P. Moralesii* and similar species are briefly discussed and a key to the Colombian species of *Pterichis*, as well as information on the ecology and distribution of *P. Moralesii* are provided.

*Pterichis* was described in 1840 by Lindley with *P. galeata* as a generitype; for many years, however, some species of this genus were classified under *Acraea*, *Goodyera* and *Prescottia*. The first revision of *Pterichis* was made by Schlechter (1911), who followed Bentham and Hooker (1883) concerning a wide definition of the taxon. Later, the same author described seven new species of *Pterichis* (Schlechter 1911b, 1912, 1913, 1921a, 1921b, 1922).

Currently *Pterichis* consists of 15–20 terrestrial species with basal, rosulate leaves. The flowers are non-resupinate, arranged in a loose, few-flowered inflorescence. The lip is sessile, concave, and variously ornate with papillae along the margins (Schweinfurth 1958, Nir 2000, Cribb 2003). The gynostemium is short, erect, with a rudimentary column part (between the ovary and the base of the anther). The anther is erect, motile, and 2-chambered. The pollinia are oblong-ovoid, usually relatively compact, and soft. The stigma is ventral, confluent, deeply concave, and pocket-like. The viscidium is single, detachable, cellular, thick, small, rounded or hood-like, asymmetric, usually producing a

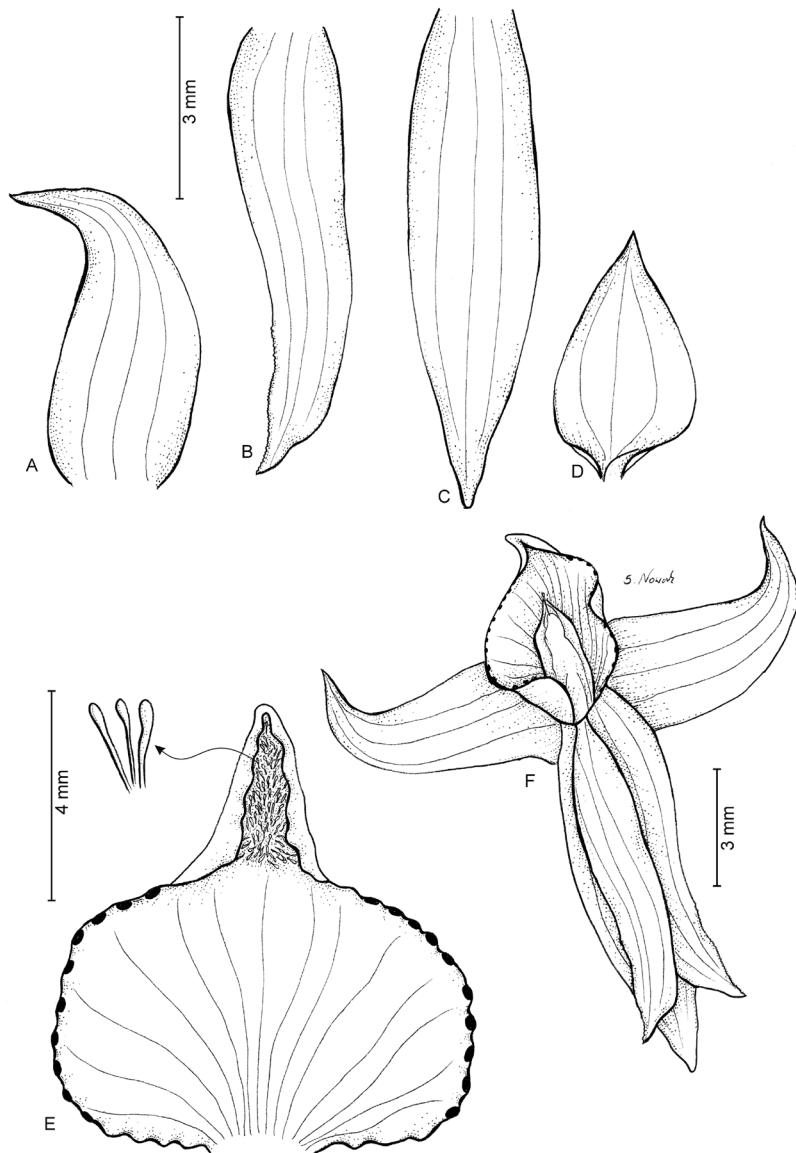
hamulus (Szlachetko & Rutkowski 2000: 295–296, figs. 362–364).

The geographical range of the genus extends from Costa Rica, Panama and Jamaica to Argentina, with the greatest species diversity in the tropical Andes region. An occurrence of *Pterichis* was reported from 2600 m a.s.l., but most of the species grow above 3000 m a.s.l. in páramo and subpáramo (Cribb 2003, Dueñas Gómez & Fernández-Alonso 2009).

The first record of *Pterichis* from Colombia was by Schlechter (1920), and a total of nine species were found in this country so far (Morales 1986, Ortiz-Valdivieso & Uribe-Vélez 2007). Taxonomic novelties within this genus are rare and the latest one was published in 1986 (Morales 1986). During examination of herbarium material, a distinctive species of *Pterichis* was discovered and it is described here as new.

### *Pterichis Moralesii* Kolan. & Szlach., sp. nova (Figs. 1 and 2)

TYPE: Colombia. Dept. Valle del Cauca. Mun. Pradera.



**Fig. 1.** *Pterichis Moralesii* (drawn by S. Nowak from the holotype). — A: Lateral sepal. — B: Petal. — C: Dorsal sepal. — D: Floral bract. — E: Lip. — F: Expanded flower, seen from above.

Cuenca alta del Río Bolo, 3300–3600 m, 19–24 November 1998 William G. Vargas 5056 (holotype HUA).

**ETYMOLOGY:** Named in honour of Gustavo Morales L., the author of the latest complete revision of the Colombian species of *Pterichis*.

Species distinguished by the congested, densely several-flowered inflorescence, glabrous tepals, apically serrate petals and lip middle lobe of the lip adorned with a tuft of long, clavate, glandular hairs.

Plant about 12 cm tall. Roots fasciculated, tuberous, (1.5)3.0–5.0 mm in diameter. Leaves 3,

basal, petiolate; blade probably linear-lanceolate (upper part of leaves damaged in holotype); petiole 1.5–2.0 cm long. Inflorescence terminal; scape about 10 cm long, glandular-pilose, with several tubular, lanceolate, acute sheaths; raceme 1.2–1.5 cm long, densely several-flowered (9-flowered in holotype). Floral bracts 7–10 mm long, ovate, acute, margins entire. Ovary ciliate, 4–5 mm long. Flowers dark yellow with purple spots. Tepals glabrous, 3-veined. Dorsal sepal 6–9 mm long and 1.2–2.2 mm wide, broadly lanceolate, obtuse to subacute. Lateral sepals 5.2–5.5 mm

long and 2.0–2.5 mm wide, ovate to ovate-lanceolate, acute. Petals 6–8 mm long and 1.00–1.75 mm wide, oblong-lanceolate, margins microscopically crenulate in apical external part, apex acute. Lip 5.5–6.2 mm long and about as wide, microscopically glandular, concave, cordate, papillose along slightly incurved margins, narrowed to a triangular apex, apex densely covered with long clavate, glandular hairs. Gynostemium about 4 mm long.

DISTRIBUTION AND HABITAT: *Pterichis moralesii* is known so far from one population found in the upper basin of the Bolo River, Department of Valle del Cauca. It grows terrestrially in páramo at about 3300–3600 m a.s.l.

*Pterichis moralesii* is easily distinguished by the dense, compact inflorescence, which is not observed in any other species of *Pterichis*. Based on the floral characters it seems to be related with *P. parvifolia* and *P. habenarioides*. From those species *P. moralesii* differs by the smaller habit, glabrous tepals and apically crenulate petals (Fig. 3).

#### Key to the Colombian species of the genus *Pterichis*

1. Inflorescence compact, dense ..... *P. moralesii*
1. Inflorescence lax or sublax ..... 2
2. Petals glabrous ..... 3
2. Petals externally glandular-pilose ..... 5



Fig. 2. Holotype of *Pterichis moralesii*.

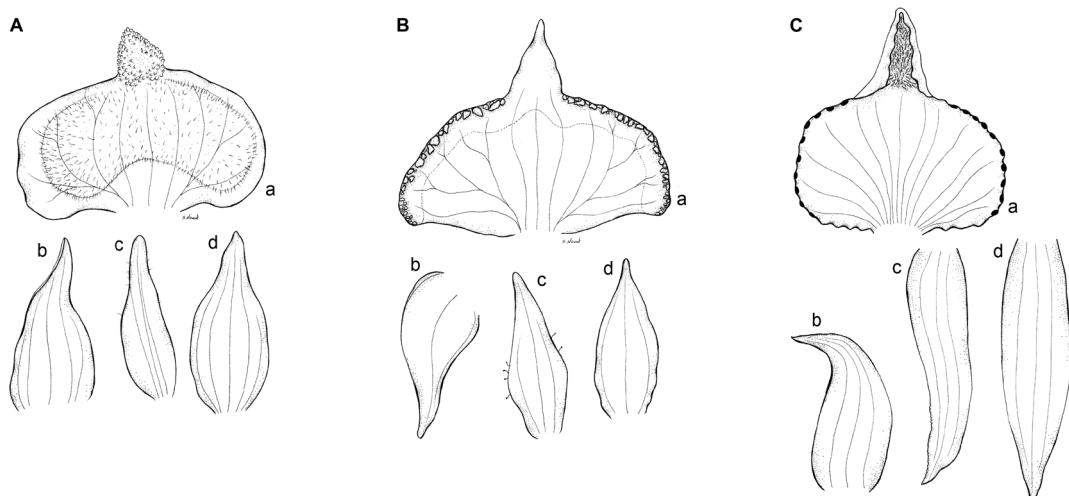


Fig. 3. Comparison of dissected flowers of (A) *Pterichis habenarioides*, (B) *P. parvifolia* and (C) *P. moralesii*. — a: lip; — b: lateral sepal; — c: petal; — d: dorsal sepal. Drawn by S. Nowak.

3. Petals spatulate, sepals glabrous ..... *P. fernandezii*  
 3. Petals not spatulate, sepals externally glandular-pilose ..... 4  
 4. Petals ligulate ..... *P. silvestris*  
 4. Petals ovate-oblong ..... *P. galeata*  
 5. Floral bracts elliptic ..... *P. colombiana*  
 5. Floral bracts ovate-lanceolate ..... 6  
 6. Sepals glabrous ..... *P. parvifolia*  
 6. Sepals glandular-pubescent ..... 7  
 7. Petals 3-veined ..... 8  
 7. Petals 2-veined ..... 9  
 8. Petals 3–4 times longer than wide ..... *P. habenarioides*  
 8. Petals 5–6 times longer than wide ..... *P. multiflora*  
 9. Leaf ovate-oblong, up to 5 × 2 cm ..... *P. triloba*  
 9. Leaf oblong-lanceolate, up to 7 × 1.2 cm .. *P. pauciflora*

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## References

- Bentham, G. & Hooker, J. D. 1883: *Genera Plantarum: ad exemplaria imprimis in Herbariis Kewensibus Servata Definita*, vol. 3, pars 2. — L. Reeve, London.
- Cribb, P. 2003: *Pterichis*. — In: Pridgeon, A. M., Cribb, P. J., Chase, M. W. & Rasmussen, F. N. (eds.), *Genera orchidacearum*, vol. 3: Orchidoideae part 2: 53–56. Oxford University Press, Oxford.
- Dueñas Gómez, H. C. & Fernández-Alonso, J. L. 2009: Sinopsis de la subfamilia Spiranthoideae (Orchidaceae) en Colombia, Parte II. — *Revista de la Academia Colombiana de Ciencias Exactas Físicas y Naturales*: 33(127): 127: 175–176.
- Morales, G. 1986: *El genero Pterichis en Colombia*. — *Orquideologia* 16(3): 53–79.
- Nir, M. 2000: *Orchidaceae Antillanae*. — DAG Media Publishing, New York.
- Ortiz-Valdивесо, P. & Uribe-Vélez, C. 2007: *Galería de Orquídeas de Colombia* (CD edition). — Asociación Bogotana de Orquideología, Bogotá.
- Schlechter, R. 1911a: Die Polychondreæ (*Neottiinae* Pfitz.) und ihre systematische Einteilung. — *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 45: 375–410.
- Schlechter, R. 1911b: *Orchidaceæ novæ et criticae*. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen*. Beihefte 9: 428–439.
- Schlechter, R. 1912: *Orchidaceæ novæ et criticae*. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen*. Beihefte 10: 445–461.
- Schlechter, R. 1913: *Orchidaceæ novæ et criticae*. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen*. Beihefte 12: 481–495.
- Schlechter, R. 1921a: Die Orchideenfloren der südamerikanischen Kordillerenstaaten. III. Ecuador. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen*. Beihefte 8: 1–172.
- Schlechter, R. 1921b: Die Orchideenfloren der südamerikanischen Kordillerenstaaten. IV. Peru. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen*. Beihefte 9: 1–182.
- Schlechter, R. 1922: Die Orchideenfloren der südamerikanischen Kordillerenstaaten. V. Bolivia. — *Repertorium Specierum Novarum Regni Vegetabilis. Centralblatt für Sammlung und Veröffentlichung von Einzeldiagnosen neuer Pflanzen*. Beihefte 10: 1–80.
- Schweinfurth, C. 1958: Orchids of Peru. — *Fieldiana Botany* 30(1): 1–260.
- Szlachetko, D. L. & Rutkowski, P. 2000: *Gynostemia Orchidatum* 1. — *Acta Botanica Fennica* 169: 1–350.